MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT

Permitting and Compliance Division
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ConocoPhillips Company
Helena Product Terminal
SE¼, NE¼, Section 28, Township 10 North, Range 3 West
3180 Highway 12 East
Helena, Lewis and Clark County, Montana

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Methods 5, 9, 7, 10, and 22
Ambient Monitoring Required		X	
Continuous Opacity Monitoring System (COMS) Required		X	
Continuous Emission Monitoring System (CEMS) Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semi-annual Reporting Required	X		
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
Administrative Rules Montana (ARM) 17.8 Subchapter 7 Preconstruction Permitting	X		Permit #2907-04
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except 40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR)		X	
Prevention of Significant Deterioration (PSD)		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General SIP
Compliance Assurance Monitoring (CAM) Plan ARM 17.8 Subchapter 15	X		Railcar Vapor Combustor Unit (VCU)

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the EPA and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Conoco Inc. (Conoco) now ConocoPhillips Company (ConocoPhillips), on June 10, 1996; an additional submittal on June 24, 1996; an administrative amendment request submitted on February 21, 2003; a renewal application submitted on July 17, 2003; amendment requests submitted on March 4, 2004, and March 30, 2006; and a significant modification application submitted on June 28, 2006.

B. Facility Location

ConocoPhillips owns and operates the Helena Product Terminal. This facility is located in the SE¼, NE¼ of Section 28, Township 28 North, Range 3 West in Lewis and Clark County, Montana. Lewis and Clark County is designated as an Unclassifiable/Attainment Area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The Helena Product Terminal is located east of Helena on Highway 12 East. The Helena Product Terminal is bounded by the highway on the south, Montana Power and Explosives on the east, Burlington Northern Railroad on the north and Exxon product terminal on the west. The surrounding vicinity is mainly industrial. Mountain View School is located between the terminal and Lake Helena. There are no parks, residential areas, or medical facilities in the immediate vicinity of the terminal.

C. Facility Permitting History

Montana Air Quality Permit History

On November 24, 1995, Conoco submitted an application for the Helena Product Terminal to obtain a Montana Air Quality Permit for the operation of the railcar loading rack and the flare. The Helena Product Terminal tanks and truck loading rack were all installed prior to 1960. Because the tanks were installed prior 1960, the facility was grandfathered from the Montana Air Quality Permit process. The operational limits placed in Permit #2907-00 allowed Conoco to stay below the threshold value for the 40 CFR 63, Subpart R requirements. **Permit #2907-00** was issued final on January 24, 1996.

On February 14, 2002, Permit #2907-01 was issued to Conoco for construction and operation of a new truck loading rack and installation of a flare to control loading emissions. The new loading rack would replace the existing truck loading rack at the Helena Product Terminal. Currently, the Helena Products Terminal is operating under a Title V operating permit because the facility is considered a major source for VOC emissions. The installation of the flare on the truck loading rack when installed would significantly reduce VOC emissions below the major source threshold. The flare is controlled beyond New Source Performance Standards (NSPS), which is considered to be Best Available Control Technology (BACT) for similar loading racks. The Department of Environmental Quality (Department) has grounds to revoke the Title V permit following appropriate installation of the flare and at Conoco's request. Following revocation of the Title V permit ConocoPhillips will be considered a Title V synthetic minor. However, at this time, ConocoPhillips remains a Title V source subject to a Title V operating permit.

The limit on the VOC emissions from the flare is as follows: the total VOC emissions to the atmosphere from the flare due to loading liquid product into tank trucks shall not exceed 10.0 milligrams per liter (mg/L) of gasoline loaded. This limit is more stringent than the 40 CFR 60, Subpart XX VOC emissions limit of 35.0 mg/L of gasoline loaded. The source complies with the Subpart XX 35.0 mg/L limit by maintaining compliance with the 10.0 mg/L limit in Permit #2907-01.

Because Conoco's flare is defined as an incinerator under Montana Code Annotated (MCA) 75-2-215, a determination that the emissions from the flare would constitute a negligible risk to public health is required prior to the issuance of a permit to the facility. Conoco and the Department identified the following hazardous air pollutants from the flare, which were used in the health risk assessment. These constituents are typical components of gasoline.

1. Benzene
2. Ethyl Benzene
3. Hexane
4. Toluene
5. Xylenes

The reference concentrations for the above pollutants were obtained from EPA's IRIS database, where available. The model performed for the hazardous air pollutants identified above demonstrated compliance with the negligible risk requirement. **Permit #2907-01** replaced Permit #2907-00.

A letter from ConocoPhillips dated January 3, 2003, and received by the Department, January 10, 2003, notified the Department that Conoco had changed its name to ConocoPhillips. This permit action changed the name on Permit #2907-01 from Conoco to ConocoPhillips. **Permit #2907-02** replaced Permit #2907-01.

A letter from ConocoPhillips dated November 24, 2004, and received by the Department December 1, 2004, notified the Department that ConocoPhillips planned to install a 2,000-gallon vertical tank used to store a lubricity additive. Since the uncontrolled potential to emit (PTE) of the 2,000-gallon vertical tank is less than 15 tons per year of any regulated pollutant the tank was added to the permit under the provisions of Administrative Rules of Montana (ARM) 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. Permit #2907-03 has also been updated to reflect current permit language and rule references used by the Department. **Permit #2907-03** replaces Permit #2907-02.

Operating Permit History

On January 13, 1999, the Department issued Title V **Operating Permit #OP2907-00** to the Conoco Helena Product Terminal as final and effective.

On February 21, 2003, the Department received a request from ConocoPhillips for a modification to Permit #OP2907-00. The modification was an administrative amendment, which changed the company name from Conoco, to ConocoPhillips. **Operating Permit #OP2907-01** replaced Operating Permit #OP2907-00.

The permit action was a renewal of ConocoPhillips' Title V Operating Permit #OP2907-01 for the Helena Product Terminal. ConocoPhillips' Operating Permit #OP2907-01 was applicable for 5 years and expired on January 12, 2004. ConocoPhillips applied for a renewal of their Title V Operating Permit on July 17, 2003. **Operating Permit #OP2907-02** replaced Operating Permit OP2907-01.

On March 4, 2004, the Department received a letter from ConocoPhillips to change the responsible official from Tom Wanzeck to Karen L. Kennedy. **Operating Permit #OP2907-03** replaced Operating Permit #OP2907-02.

On March 30, 2006, the Department received a letter from ConocoPhillips to change the responsible official from Karen L. Kennedy to John T. Barrett. **Operating Permit #OP2907-04** replaced Operating Permit OP2907-03.

D. Current Permit Action

On June 28, 2006, the Department received an application from ConocoPhillips to permit the temporary operation of a soil vapor extraction (SVE) system, which has the potential to emit up to 23.7 tons per year (TPY). The application also requested permit corrections to reflect that ConocoPhillips never installed a two-bay truck loading rack and thermal oxidizer permitted in 2002 in Montana Air Quality Permit (MAQP) #2907-01, and to revise the gasoline and distillate throughput limits for the truck loading rack and addition of throughput limits for the railcar loading rack, to maintain plant-wide emissions below PSD threshold levels. In addition, the MAQP was revised to clarify some of the conditions and limitations, such as removing the specified pressure gauge test and the VOC leak detection tests previously included as attachments 1 and 2, and instead referencing 40 CFR Part 60 procedures. **MAQP #2907-04** replaced MAQP #2907-03, and **Operating Permit #OP2907-05** replaces Operating Permit #OP2907-04.

E. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on October 24, 2006.

F. Compliance Designation

The ConocoPhillips Helena Product Terminal was officially inspected by the Department on March 22, 2007. Review of all the material in the Department's files and information provided from the inspection indicates that the facility is in compliance. ConocoPhillips is required to test the flare every 5 years. The flare was last tested July 19, 1996, and the unit was taken out of service shortly after the test.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

The facility receives gasoline, diesel, and jet kerosene from the Yellowstone pipeline. Currently the distillate fuels are distributed by rail and truck while all other fuels are distributed by truck around the area. The Standard Industrial Classification (SIC) for this facility is "Wholesale Distribution" which has an SIC Code of "5171".

B. Emission Units and Pollution Control Device Identification

Currently, the Helena Product Terminal operates a truck loading rack, a railcar loading rack, and seven tanks. Tanks T-32, T-33, T-35, T-36, and T-37 contain gasoline with internal/external floating roofs. Tanks T-30 and T-31 contain jet kerosene and diesel and are equipped with fixed roofs. The Helena Product Terminal also operates an enclosed flame vapor combustor unit (VCU) to control emissions from the railcar loading rack. Fugitive emissions include valves, flanges, pump seals, open-ended lines, etc. and are required to be inspected each calendar month.

C. Categorically Insignificant Sources/Activities

ARM 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by an applicable requirement other the a generally applicable requirement.

The miscellaneous emissions from the ConocoPhillips Helena Product Terminal include emissions from tank cleaning, additive tanks emissions, and meter proving, etc. These units are insignificant because they emit less than 5 tons per year of any regulated pollutant.

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

The ConocoPhillips Helena Product Terminal truck loading rack is limited to a maximum of 75,600,000 gallons of gasoline and 105,000,000 gallons of distillate product throughput for the truck loadout operation during any 12-month rolling period. The railcar loading rack is limited to a maximum of 210,000,000 gallons of gasoline and 420,000,000 gallons of distillate product during any 12-month rolling period. These throughput restrictions, as well as the VOC limit on the SVE, ensures that the facility has the PTE less than 250 tons per year; therefore, this facility is not subject to PSD regulations.

ConocoPhillips is required to conduct monthly leak checks for the fugitive emissions. Detection methods incorporating sight, sound, or smell are acceptable for the purposes of these inspections. The railcar loading rack VCU is limited to an opacity of 10% and 0.10 grains per dry standard cubic foot (gr/dscf) of particulate emissions. Also, the NO_X, CO, and VOC emissions are limited to 4.0 mg/L, 10.0 mg/L, and 10.0 mg/L, respectively.

The emission units at this facility are not subject to the 40 CFR 63, Subpart R MACT requirements because they have accepted an operational limit that keeps them below the threshold value. The emission units at the facility are not required to meet any NESHAP or NSPS.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement for testing, monitoring, record keeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emission units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (i.e., no monitoring) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

This permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by ConocoPhillips to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

ConocoPhillips is required to log the throughput of gasoline and distillate products through the truck loadout operations and submit a semi-annual report verifying compliance with the production limits. The report of throughput will be used to assure compliance with the limitation in this permit. Annually, ConocoPhillips must calculate potential VOC emissions based on the throughput of these products as well as the calculated VOC loss from the SVE system to monitor compliance with the requirement to remain below the PSD threshold.

Tanks T-32, T-33, T-35, T-36, and T-37 must operate a vapor loss control device and shall be annually inspected to verify the operation's compliance with the ARM 17.8.324 conditions. ConocoPhillips is required to log the loading operation of the railcar loading rack for leaks and log the receipt of the vapor tightness documentation. The recordkeeping requirements that must be kept during leak inspections on the fugitive source should demonstrate compliance with the ARM 17.8.749 conditions.

Once the railcar loading system is re-activated, ConocoPhillips is required to test the VCU every 5 years to demonstrate compliance with the VOC limitation of 10.0 mg/L. ConocoPhillips must also operate a thermocouple and associated recorder on the VCU, or other equivalent device, during operation of this unit, in accordance with their CAM Plan.

C. Test Methods and Procedures

The operating permit does not require testing for all sources because routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. ConocoPhillips is required to test the flare to determine compliance with the VOC limitation of 10.0 mg/L. ConocoPhillips is also required to test the flare, as required by the Department, to demonstrate compliance with the opacity limitations as well as the CO and NO_X limitations. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

Retention of the records of all required recordkeeping data and support information shall be kept as a permanent business record for a period of at least 5 years following the date of the generation of the record. Support information includes: all log books and original recordings for the continuous recordkeeping requirements, and copies of all reports required by the operating permit.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. ConocoPhillips is required to submit to the Department reports of any required monitoring at least every 6 months and to annually certify compliance with the applicable requirements contained in the permit. All deviations from permit requirements must be clearly identified in these reports. All reports must be certified by a responsible official. The permittee is also required to promptly report any deviations from the permit requirements due to upset conditions and the probable cause of the upset condition along with any corrective actions or preventive measures taken.

F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the *Helena Independent Record* newspaper on or before August 28, 2007. The Department provided a 30-day public comment period on the draft operating permit from August 28, 2007, through September 27, 2007. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by September 27, 2007, will be summarized, along with the Department's responses, in the following table. All comments received during the public comment period will be promptly forwarded to ConocoPhillips so they may have an opportunity to respond to these comments as well.

Summary of Public Comments

Person/Group Commenting	Comment	Department Response

G. Draft Permit Comments

Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response

SECTION IV. NON-APPLICABLE REQUIREMENTS ANALYSIS

Section IV of the operating permit "Non-applicable Requirements" contains the requirements that the Department determined were non-applicable. The following table summarizes the requirements that ConocoPhillips identified as non-applicable and contains the reasons that the Department did not include these requirements as non-applicable in the permit.

Requirement not Identified in the Operating Permit

Applicable Requirement	Reason
ARM 17.8.601 ARM 17.8.602 ARM 17.8.1201(10)(a) ARM 17.8.1201(10)(b) ARM 17.8.1201(10)(f) ARM 17.8.1201(10)(i) ARM 17.8.1201(10)(k)	This is either a statement of purpose, applicability statement, regulatory definitions, or a statement of incorporation by reference. These types of rules do not have specific requirements associated with them.
ARM 17.8.604 ARM 17.8.605 ARM 17.8.606 ARM 17.8.611 ARM 17.8.612 ARM 17.8.613	These are procedural rules that have specific requirements that may become relevant to a major source during the permit term.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of the date of the draft Operating Permit #OP2907-05, ConocoPhillips has an operational limit that keeps them below the applicability thresholds of 40 CFR 63, Subpart R. The Department is unaware of any other future MACT Standards that may be promulgated that will affect this facility.

B. NESHAP Standards

As of the date of the draft Operating Permit #OP2907-05, the Department is unaware of any future NESHAP Standards that may be promulgated that will affect this facility.

C. NSPS Standards

As of the date of the draft Operating Permit #OP2907-05, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

D. Risk Management Plan

As of the date of the draft Operating Permit #OP2907-05, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; 3 years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

E. Compliance Assurance Monitoring (CAM) Plan

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (other than emission limits or standards proposed after November 15, 1990, since these regulations contain specific monitoring requirements);
- The emitting unit uses a control device to achieve compliance with such limit; and
- The emitting unit has potential pre-control device emission of the applicable regulated air pollutants that are greater than major source thresholds.

ConocoPhillips currently has one emitting unit that meets all the applicability criteria in ARM 17.8.1503: EU08 Railcar Loading Rack. The unit has a pre-control potential to emit over 100 TPY of VOC. The facility is required to meet a VOC BACT limit of 10 mg/L. A vapor combustion unit is used for the VOC control. ConocoPhillips proposes to use a flame detector with automatic shutoff as the on-going method of assuring compliance with the requirement to operate the VCU in order to maintain compliance with the 10 mg/L limit, as described in their CAM Plan.